

Attorney Docket DP-309619

Claims:

1-17. (Cancelled)

18. (Currently Amended) A method of making a catalyst, the method comprising the steps of:
reacting a titanium salt with an alcohol to form a titanium alkoxide; and separately
reacting a zirconium salt with an alcohol to form a zirconium alkoxide; followed by
mixing the titanium alkoxide and the zirconium alkoxide to form an organometallic
precursor; followed by
decomposing the organometallic precursor to form a solid solution characterized by a
zirconium-titanium oxide; and then
adding a precious metal to the solid solution to form the catalyst.

19. (Original) The method of Claim 18, wherein the solid solution further comprises
yttrium and lanthanum.

20. (Cancelled)

21. (Previously presented) The method of Claim 18, wherein forming the organometallic
precursor further comprises:

reacting a yttrium salt with an alcohol to form a yttrium alkoxide;
reacting a lanthanum salt with an alcohol to form a lanthanum alkoxide; and
mixing the titanium alkoxide, the zirconium alkoxide, lanthanum alkoxide, and yttrium
alkoxide to form the organometallic precursor.

22. (Previously presented) The method of Claim 18, wherein decomposing the
organometallic precursor to form a solid solution further comprises adding water to the

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organometallic precursor.

23. (Original) The method of Claim 18, wherein the organometallic precursor further comprises methacrylic acid.

24. (Original) The method of Claim 18, wherein the organometallic precursor comprises $\text{Zr}_2\text{Ti}_4\text{O}_4[\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_3][\text{OC}(\text{O})\text{CH}_2\text{CH}_3]_{10}$.

25. (Cancelled)

26. (Original) The method of Claim 18, wherein the organometallic precursor comprises a precious metal precursor.

27. (Original) The method of Claim 18, further comprising heat treating the catalyst to a temperature of greater than or equal to about 700°C.